JOURNAL OF SECURITY AND SUSTAINABILITY ISSUES
ISSN 2029-7017 print/ISSN 2029-7025 online
2020 March Volume 9 Number 3
https://doi.org/10.9770/jssi.2020.9.3(31)

Scopus®

ASSESSMENT OF CRITERIA FOR PERFORMANCE EXCELLENCE (KPKU) AND FIRM PERFORMANCE: EVIDENCE FROM INDONESIA

Melinda Cahyaning Ratri[1], Iman Harymawan[2*], John Nowland[3]

[1,2]Department of Accountancy, Faculty of Economics and Business, Universitas Airlangga, Indonesia
[3]College of Business, Illinois State University, USA

E-mail: [2]harymawan.iman@feb.unair.ac.id*

Received 15 February 2019; accepted 20 November 2019; published 30 March 2020

Abstract. This study aims to examine whether the assessment of Criteria for Performance Excellence (KPKU) is related to the firm performance of States-Owned Enterprise (SOE) in Indonesia. This study uses 82 firms-year observations from 19 State-Owned Enterprise listed on the Indonesia Stock Exchange (IDX) for the period 2009 to 2018. This study found that KPKU assessment was positively related to firm performance. This shows that KPKU assessment can be a signal that the company has good performance. The study also found that the positive relationship between KPKU assessment and company performance is stronger in companies audited by Big 4 and in big-sized companies. This study is the first research that discusses the relationship between KPKU assessment and firm performance. This study may be useful for practitioners and academics that are interested in the subject of SOE performance assessment. The results suggest to conduct a regular KPKU assessment because it can be useful to provide a positive signal for shareholders and potential investors.

Keywords: KPKU assessment; firm size; firm performance; states owned company

Reference to this article should be made as follows: Ratri, M.C., Harymawan, I., Nowland, J. 2020. Assessment of criteria for performance excellence (KPKU) and firm performance: evidence from Indonesia. *Journal of Security and Sustainability Issues*, 9(3), 1077-1088. https://doi.org/10.9770/jssi.2020.9.3(31)

JEL Classifications: L25, G30, M10.

1. Introduction

The purpose of the establishment of the company is to improve firm performance in the long run. In practice, there are many decisions made in a company that are based on evaluating firm performance, so performance appraisal is one of the important elements that needs to be considered (Longenecker & Fink, 1999; Davis, 2002; Cintrón & Flaniken, 2011). Performance appraisal is considered as a key component in organizational success (Grote, 2002; Rasch, 2004). Performance appraisal allows companies to communicate to all internal parties about their level of growth, competence, and potential, thus enabling the improvement and development of the company. If used properly, performance appraisal can be a tool for organizations in organizing and coordinating the strengths of each of their employees to achieve the company's strategic goals (Grote, 2002; Lewis, 1996; Narkunienė, Ulbinaitė, 2018; Girdzijauskaite et al., 2019; Hilkevics, Semakina, 2019; El Idrissi et al., 2020; Caurkubule et al., 2020).

Performance appraisal is important for companies in identifying the strengths and opportunities that companies have in order to increase their competitive advantage (Arijanto et al., 2016). One of the methods used to assess and improve overall company performance continuously is use the Malcolm Baldrige Criteria for Performance

Excellence (MBCfPE). Assessments based on MBCfPE can be used to identify and evaluate work units for both profit-oriented and non-profit companies (Mayani et al., 2015). Criteria in MBCfPE can help the company assess performance on a variety of key business indicators: customers, products and services, finance, human resources, and operations (Ford & Evans, 2000; Roland, 2011). There are seven categories which are the criteria of Malcolm Baldrige (Arijanto et al., 2016), such as leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, operations focus, and results.

In Indonesia, the MBCfPE criteria is used in assessing the Indonesia Quality Award. This is done with the aim of increasing awareness of companies in Indonesia that performance excellence is an important element for companies to compete and is a means of sharing information about success in implementing performance strategies and the benefits of using this strategy (Arijanto et al., 2016). On the other hand, the Ministry of State-Owned Enterprises uses an evaluation criterion called the Superior Performance Assessment Criteria (KPKU) in assessing the performance of SOEs. These assessment criteria are the result of the adoption of the MBCfPE criterion that has been used extensively throughout the world (Cintrón & Flaniken, 2011). The Ministry of State-Owned Enterprises develops the KPKU as a guide to develop, manage and empower SOE systems and resources to achieve superior SOE company performance. The KPKU is also used as a tool for conducting SOE self-assessments and providing feedback to each SOE strategies (Hardian et al., 2015; Arijanto et al., 2016; Wen at al., 2017). KPKU is mandatory to be practiced in the SOE environment, but until now there are SOEs that have not revealed their performance assessment scores or their KPKU score in the company's annual report. Nowdays, KPKU is only applied to state-owned enterprise. This is regulated in Minister of State-Owned Enterprises Regulation No. PER-01/MBU/2011, Article 44 Chapter XII and letter from the Ministry of SOEs No. S-281/S.MBU/2014 concerning Implementation of Superior Criteria Performance Evaluation (KPKU) on 2014.

Performance appraisal is a widely discussed concept because it is a need to achieve organizational goals (Chen & Eldridge, 2012; Tippe, 2013). Many previous studies have discussed performance appraisal based on MBCfPE criteria, but there has been no specific research that discusses performance evaluation criteria through KPKU. Chen and Eldridge (2010) and Appelbaum et al. (2011) explain that performance appraisal can be used as a tool to increase motivation. In addition, van Emmerik et al. (2012) argue that performance appraisal can be used to motivate employees through rewards such as promotions and salary increases. Awards received by these employees can ultimately be used to improve company performance (Bassett-Jones & Lloyd, 2005). Aguinis and Pierce (2008) also explain that performance appraisal can be a starting point for improving individual performance in a way that is consistent with strategic objectives and with the ultimate goal of improving firm performance. However, on the other hand performance appraisal also has serious consequences in terms of employee dissatisfaction which can result in decreased productivity and organizational commitment (Maley, 2013).

There is no one has examined the relationship between the results of the KPKU assessment with the firm outcomes, which are reflected through the firm performance. Thus, this study was conducted to examine the relationship between the assessment of Criteria for Performance Excellence (KPKU) and the firm performance of States-Owned Enterprise (SOE) in Indonesia for the period 2009-2018. Using a sample of 82 firm-year observations, this study found that the relationship between KPKU assessment with firm performance was positive and significant. This indicates that the KPKU assessment can improve company performance by increasing communication and integration, framing organizational goals, and providing feedback on organizational strategies. This result can also be a positive signal for shareholders and investors that the company has good performance. In addition, this study also found that a positive relationship between KPKU assessment and company performance was stronger in companies audited by Big 4 and in big-sized companies.

This research makes a number of contributions. This study is the first research that examines the relationship between KPKU assessment with the firm performance of BUMN companies listed on the Indonesia Stock Exchange. This research can clarify our understanding of how performance is valued and provide useful suggestions for improving performance appraisal in organizations. In addition, this study also shows the importance

of KPKU assessment in encouraging SOEs performance. KPKU assessment can be a tool for comprehensive evaluation or assessment of company performance and can be a guideline or reference in the development and implementation of company systems so as to achieve strong growth rates which in turn can become a competitive advantage of the company. Furthermore, the results of this study can be used as a guideline for carrying out the company's long-term and short-term strategies, using the KPKU as an evaluation tool for reliable and superior management practices. The results of this study suggest to conduct regular KPKU assessments because they can be useful to provide positive signals for shareholders and investors.

The remainder of this paper is organized as follows. The next section outlines the relevant research and develops the hypotheses. Section 3 details the sample, variables and empirical models. Section 4 provides the empirical analysis and results. Section 5 outlines the conclusions and implications of the study.

2. Literature Review

2.1. Assessment of Criteria for Performance Excellence (KPKU)

The Criteria for Performance Excellence (KPKU) is a basis for evaluation used by SOEs in providing feedback to SOEs to create high-quality performance (Wibowo, 2019). According to the Forum Ekselen BUMN (2014), KPKU is one of the Ministry of States-Owned Enterprise's initiative strategies in creating systematic and sustainable improvements and performance improvements to encourage SOEs to improve performance to compete at the world level. The advantage of KPKU is its ability to provide comprehensive and integrated assessments. KPKU is an adaptation of the Malcolm Baldrige Criteria for Performance Excellence (MBCfPE).

KPKU is designed to encourage and help SOEs achieve the vision, mission and goals of the company, improve performance in a sustainable manner, and encourage the creation of a competitive advantage through the alignment of company plans, processes carried out, decision making, employee/labor focus and all actions which can ultimately be demonstrated by the achievement of superior results (Holzer et al., 2011; Mawirda & Yulihasri, 2019). KPKU is also designed to be used as a holistic assessment tool to measure the company's position and show what is needed by the company in the future to improve performance in the long run (Arijanto et al., 2016). The KPKU framework is divided into seven criteria, where each criterion is interconnected to create superior performance (Morrey, 2004; Wibowo, 2019), namely leadership, strategic planning, customer focus, measurement, analysis and knowledge management, workforce focus, focus on operations and results. The KPKU criteria are designed so that the company focuses on results related to the company's excellence in its industry, such as the main performance of products or services and processes, customer performance, financial performance, human resource performance and organizational governance effectiveness.

Nowdays, the Ministry of SOEs is encouraging the creation of three core values in SOEs, namely integrity, strong national leadership and global mindset, therefore KPKU has been established as a criterion for measuring the level of SOE excellence (Ministry of BUMN RI, 2015). The application of KPKU-based assessments in SOEs is regulated in Minister of State-Owned Enterprises Regulation No. PER-01/MBU/2011, Article 44 Chapter XII and letters from the Ministry of SOEs No. S-281/S.MBU/2014 concerning Implementation of Performance Evaluation of Superior Criteria (KPKU) in 2014. The KPKU criteria are non-prescriptive and adaptive, that is, its application does not require companies to "ought" to have certain organizational structures such as Planning Units, Ethics Management Units, Quality Management Units or other independent functions and also does not require companies must implement ISO, Lean, Six Sigma, or Balanced Score Cards (Wibowo, 2019). This is because different companies have different conditions, sizes, and challenges. Forum Ekselen BUMN (2014) explained that KPKU has eight levels to classify the excellence level of an organization, where each level has indicators of the range of achievement scores as follows early development (0-275), early result (276-375), early improvement (376-475), good performance (476-575), emerging industry leaders (576-675), industry leaders (676-775), benchmark leaders (775-875) and world leaders (876-1000).

2.2. KPKU Assessment and Firm Performance

Given the increasingly fierce of business competition, companies need to make improvements on aspects that are important and significant for the corporate sustainability. The company must have a performance that is superior to its business competitors. In the SOE environment, one of the evaluation criteria that can be used by companies to have excellent performance is to use the KPKU criteria. As such, KPKU functions as a guide to develop, regulate and empower SOE systems and resources to achieve superior performance.

Siegal (2000) explains that performance appraisal is a process or evaluation system for plans that have been carried out by companies in accordance with predetermined standards. This assessment was approved to improve the current firm performance. Some previous research conducted related to performance appraisal shows that performance appraisal is used to plan organizations to achieve the company's vision and mission (Nelly, 2001; Dessler, 2003). This can be done by increasing communication and integration, framing organizational goals, providing feedback on strategy, because organizational performance is always in line with organizational strategy. Furthermore, Bouti (2012) explains that the Key Performance Indicator (KPI) is a quantitative measure used to improve organizational performance in achieving organizational targets. KPIs are also used to determine the object being measured, see trends and support decision making. Chen and Eldridge (2010) and Appelbaum et al., (2011) explain that performance appraisal can be used as a tool to increase motivation. Performance appraisal can be used to motivate employees through rewards such as promotions and salary increases, which can then encourage employees to be more committed in improving the firm performance (Bassett-Jones & Lloyd, 2005; van Emmerik et al., 2012). Aguinis and Pierce (2008) also explain that performance appraisal can be a starting point for improving individual performance in a way that is consistent with strategic objectives and with the ultimate goal of improving the firm performance.

To be superior, companies must know about the internal and external environment must be better than competitors' knowledge about themselves and their external environment. KPKU is designed to be used as a holistic assessment tool to measure the company's position and determine what companies need to evaluate in the future to improve performance in the long run (Wibowo, 2019; Mawirda & Yulihasri, 2019). Thus, the hypothesis in this study is as follows:

Hypothesis: KPKU assessment is positively related to company performance.

3. Research Methodology

3.1. Sample

The initial sample of this study consisted of all state-owned companies listed on the Indonesia Stock Exchange (IDX) for the period 2009-2018. Data sources used in this study include the company's annual report and the ORBIS database. Data related to KPKU assessment and Big 4 variable data are obtained through the company's annual report, while the company's financial data are obtained through the ORBIS database. The two datasets are merged and the following sample selection criteria are applied. Any observations without complete data, such as not having the KPKU score and financial data, are excluded from the sample. After applying sample selection criteria, the final sample included 82 firm-year observations.

3.2. Variable Definitions

The main variable of interest in this study is the assessment of the Criteria for Performance Excellence (KPKU). This variable was measured using the KPKU score obtained by the company in the year of observation (Hardian et al., 2015; Arijanto et al., 2016). Furthermore, the dependent variable in this study is firm performance (FP). This variable is measured by return on assets (ROA) and return on equity (ROE). ROA is measured as net income divided by total assets, while ROE is net income divided by the book value of total equity.

To overcome the problem of endogeneity in the form of omitted variables, which do not include explanatory variables that might affect the results of the study, this study uses several control variables. Referring to previous research (Cintrón & Flaniken, 2011; Roland, 2011; Harymawan et al., 2019) the control variables used in this study include: firm leverage (LEVERAGE) as measured by dividing total debt by total assets, firm size (FIRMSIZE) as measured by the natural logarithm of total assets, firm age (FIRMAGE) as measured by natural logarithms of the number of years since the company was founded, and big4 auditor (BIG4) which is a dummy variable, where the value of 1 if the company is audited by Big 4 and a value of 0 if the company is not audited by Big 4. See the Table 1 for a summary of variable definitions.

Table 1. Definition and Expected Signs of Variables

Variable	Definition	Source
ROA	Net income divided by total assets	ORBIS
ROE	Net income divided by book value of total equity	ORBIS
KPKU	KPKU score obtained by the company	Annual Report
LEVERAGE	Total debt divided by total assets	ORBIS
FIRMSIZE	Natural logarithm of total assets	ORBIS
FIRMAGE	Natural logarithm of the number of years since the company was founded	ORBIS
BIG4	Dummy variable, 1 for the firm audited by big 4 and 0 for the unaudited company by big 4	Financial Report

3.3. Methodology

This study uses an OLS regression model with fixed year and industry effects, and clustered standard errors (Petersen, 2009). To test the first hypothesis in this study, the following regression model is used.

$$FP_{i,t} = \beta_0 + \beta_1 KPKU_{i,t} + \beta_2 LEVERAGE_{i,t} + \beta_3 FIRMSIZE_{i,t} + \beta_4 FIRMAGE_{i,t} + \beta_5 BIG4_{i,t} + YEAR_{i,t} + INDUSTRY_{i,t} + \varepsilon_{i,t}$$

4. Result and Discussion

4.1. Descriptive Statistics and Univariate Comparisons

Table 2 contains the sample distribution by year of observation and industry sector. The sample of companies that were observed in this study were distributed in five industries, including mining; construction; manufacturing; transportation, communications, and utilities; and finance, insurance, and real estate. The highest number of firm-years of observations coming from Mining (28), furthermore are Transportation, Communications and Utilities and Manufacturing (22), and Mining (12). Of the total observations of 82 firm-year observations, in 2014 and 2015 there were 16 companies that revealed the results of the KPKU assessment. That year showed the highest number of observations compared to previous years. This was driven by a letter from the Ministry of SOEs No.S-281/S.MBU/2014 regarding the Implementation of the Criteria for Performance Excellence (KPKU).

Table 2. Sample Distribution

Year	Industries					Total
	(SIC 1) Mining	(SIC 2) Construction	(SIC 3) Manufacturing	(SIC 4) Transportation, Communications and Utilities	(SIC 6) Finance, Insurance and Real Estate	
2009	0	0	0	1	0	1
2010	0	0	0	1	0	1
2011	0	0	0	1	0	1
2012	2	0	0	2	0	4
2013	3	1	1	3	0	8
2014	5	2	3	4	2	16
2015	6	2	3	3	2	16
2016	4	2	1	3	2	12
2017	5	2	3	3	2	15
2018	3	2	1	1	1	8
Total	**28**	**11**	**12**	**22**	**9**	**82**

Notes: This table shows the sample distribution of 82 companies listed on the IDX in 2009-2018.

Table 3 shows the descriptive statistics. The mean value for ROA is 40.7%, while the average value for ROE is 99.9%. The average value for KPKU is 537.77, which is included in the category of emerging industry leaders. The average company has a leverage of 5.86% and total assets of IDR 95,530,000,000. The average age of the company is 44.2. Companies audited by Big 4 auditors have an average value of 0.573.

Table 3. Descriptive Statistics

	Mean	Median	Minimum	Maximum
ROA	4.070	3.425	-11.890	22.800
ROE	9.999	11.920	-42.080	40.540
KPKU	537.771	560.750	250.300	897.000
LEVERAGE	0.586	0.587	0.084	0.925
FIRMSIZE	95,530,000,000	30,650,000,000	1,250,000,000	1,130,000,000,000
FIRMAGE	44.207	41.500	15.000	121.000
BIG4	0.573	1.000	0.000	1.000

Notes: This table shows descriptive statistics for all the variables used in this study. The sample used in this study amounted to 82 companies listed on the IDX in 2009-2018.

Table 4 displays the Pearson correlations. The correlations between KPKU and the firm performance measures, ROA and ROE, are in the predicted direction, but insignificant. Other correlations between control variables are generally low and don't raise any multicollinearity issues for our subsequent analysis. FIRMSIZE and BIG4 variables show a negative correlation with company performance, but not significant. Furthermore, LEVERAGE and FIRMAGE variables are negatively and significantly related to ROA.

Table 4. Pearson Correlation

	ROA	***ROE***	***KPKU***	***LEVERAGE***	***FIRMSIZE***	***FIRMAGE***	***BIG4***
ROA	1.000						
ROE	0.843***	1.000					
	(0.000)						
KPKU	0.093	0.091	1.000				
	(0.404)	(0.414)					
LEVERAGE	-0.424***	0.035	0.091	1.000			

	(0.000)	(0.756)	(0.415)				
FIRMSIZE	-0.025	0.143	0.422***	0.381***	1.000		
	(0.823)	(0.199)	(0.000)	(0.000)			
FIRMAGE	-0.235**	-0.124	-0.077	0.253**	0.051	1.000	
	(0.034)	(0.265)	(0.490)	(0.022)	(0.650)		
BIG4	-0.017	-0.113	0.187*	-0.100	0.649***	0.018	1.000
	(0.877)	(0.314)	(0.092)	(0.374)	(0.000)	(0.869)	
Notes: This table shows the Pearson Correlation test results from 82 companies listed on the IDX in 2009-2018 with *t > 1,645, ** t > 1,960, *** t > 2,326, significance at 10%, 5% and 1%.							

4.2. KPKU Assessment and Firm Performance

Table 5 shows the results of model 1. Regression results in both specifications, using ROA and ROE as a proxy of company performance show a significant positive relationship. The coefficient on the KPKU shows 0.017 (t=2.15) and 0.027 (t=1.82). These results indicate that KPKU is positively and significantly related to ROA at the 5% level, whereas for ROE, KPKU is positively and significantly related to the 10% level. The results of this study are consistent with the hypothesis proposed in this study and indicate that the higher the KPKU assessment score, the higher the firm performance. Furthermore, the regression results for control variables show that company performance tends to be lower in companies that have high leverage and are audited by Big 4.

KPKU assessment can be a motivation for companies to identify strengths and opportunities that can improve company performance. In addition, KPKU assessment results can guide companies in managing existing resources to help companies achieve the expected results (Nelly, 2001; Dessler, 2003). KPKU assessment can spur companies to further enhance their abilities in every area of the organization and encourage employees to grow and not stop to continue to learn from the successes and failures that occur. Firm performance can improve if KPKU assessments are used appropriately to improve communication and integration, frame organizational goals, and provide feedback on organizational strategy (Bassett-Jones & Lloyd, 2005; van Emmerik et al., 2012; Chen & Eldridge, 2010; Appelbaum et al., 2011). Thus, the KPKU assessment can be a quantitative measure used to improve SOE performance and achieve the expected targets.

Table 5. KPKU Assessment and Firm Performance

	ROA	***ROE***
KPKU	0.017**	0.027*
	(2.15)	(1.82)
LEVERAGE	-23.671***	-23.903**
	(-5.78)	(-2.27)
FIRMSIZE	0.803	2.391
	(1.21)	(1.50)
FIRMAGE	-0.257	-1.858
	(-0.22)	(-0.61)
BIG4	-3.124*	-9.483**
	(-1.80)	(-2.27)
CONSTANT	-10.888	-46.534
	(-0.56)	(-1.11)
Year Dummies	Included	Included
Industry Dummies	Included	Included
R-squared	0.501	0.377
N	82	82
Notes: This table shows the results of multiple linear regression between KPKU Assessment and firm performance of 82 companies listed on the IDX in 2009-2018 with *t > 1,645, ** t > 1,960, *** t > 2,326, significance at 10%, 5% and 1%.		

4.3. Additional Analysis

This study also examines two specific situations where we expect to affect the relationship between the KPKU assessment and firm performance. The first situation is when the company is audited by Big 4 and non-Big 4 auditors, while the second situation is when the research observation is in a large-sized company compared to a small-sized company.

In the first additional analysis, regression was carried out by dividing the research sample into two groups, namely companies that were audited by Big 4 amount of 47 observations and companies audited by non-Big 4 as many as 35 observations. Table 6 shows the regression results for companies audited by Big 4 and non-Big 4. It can be seen that the KPKU coefficient in the Big 4 column is 0.020 (t=2.29) for ROA, and 0.035 (t=2.12) for ROE. Both the specifics of the companies audited by Big 4 indicate that the KPKU assessment is positively and significantly related to the 5% level. Meanwhile, the regression results for companies audited by non-Big 4 show a negative but not significant relationship to all firm performance proxies, ROA and ROE. This result reinforces some of the previous findings. These results indicate that KPKU assessment is positively related to the firm performance in companies audited by Big 4 auditors. This indicates that companies audited by Big 4 that tend to have good consequences and responsibility to maintain their reputation, the KPKU assessment is used as a guide to develop, regulate and empower company systems and resources to achieve the superior firm performance.

Table 6. KPKU Assessment in the Companies Audited by Big 4 vs Non-Big 4

	Big 4		Non-Big 4	
	ROA	***ROE***	***ROA***	***ROE***
KPKU	0.020**	0.035**	-0.003	-0.010
	(2.29)	(2.12)	(-0.77)	(-0.76)
LEVERAGE	-30.878***	-43.540*	-2.722	35.296***
	(-2.92)	(-1.89)	(-0.92)	(4.82)
FIRMSIZE	-1.682	-2.294	2.209**	5.083*
	(-0.73)	(-0.48)	(2.62)	(1.96)
FIRMAGE	-1.698	-4.643	4.984***	13.216***
	(-0.84)	(-0.96)	(3.51)	(3.35)
CONSTANT	77.435	116.783	-76.015***	-202.050***
	(1.02)	(0.74)	(-3.55)	(-3.19)
Year Dummies	Included	Included	Included	Included
Industry Dummies	Included	Included	Included	Included
R-squared	0.592	0.474	0.928	0.894
N	47	47	35	35

Notes: This table shows the results of multiple linear regression between KPKU Assessment and firm performance in the Companies Audited by Big 4 vs Non-Big 4 that are listed on the IDX in 2009-2018 with $^{*}t > 1{,}645$, $^{**}t > 1{,}960$, $^{***}t > 2{,}326$, significance at 10%, 5% and 1%.

Furthermore, this study also wants to investigate further whether the relationship between KPKU assessment and firm performance gives different results to big-sized companies compared to small-sized companies. In this second analysis, the distribution of the sample is done by looking at the median value of company size. If the company has a company size above the median value (>31.05362) then it is classified as a big-sized company, conversely if the company has a company size below the median value (<31.05362) then it is classified as a small-sized company.

Table 7 shows the regression results for the big-sized and small-sized companies. It can be seen that the KPKU coefficient in the Big Size column is 0.026 (t=2.71) for ROA, and 0.040 (t=2.05) for ROE. Both specification for big-sized companies indicate that the KPKU assessment is positively and significantly related at the level of 1% and 5%. While the regression results for small-sized companies also showed a positive but not significant

to all proxy company performance, ROA and ROE. These results reinforce some of the previous findings, that the KPKU assessment is positively related to firm performance in large companies. This indicates that in large companies that tend to be stable and well established, KPKU assessment is used as a tool for evaluation or comprehensive assessment that can be useful to improve firm performance. KPKU assessment can direct companies to manage existing resources (Mawirda & Yulihasri, 2019). Thus, complex resources in large companies can be accommodated and managed properly to achieve the goals expected by the organization.

Table 7. KPKU Assessment in the Big Size vs Small Size Companies

	Big Size		Small Size	
	ROA	***ROE***	***ROA***	***ROE***
KPKU	0.026***	0.040**	0.017	0.033
	(2.71)	(2.05)	(1.49)	(1.33)
LEVERAGE	-27.336**	-8.654	-33.946***	-52.070**
	(-2.08)	(-0.35)	(-3.84)	(-2.45)
FIRMAGE	1.735	8.905	-0.032	-1.905
	(0.49)	(1.30)	(-0.03)	(-0.56)
BIG4	-7.895	-10.001	-1.102	-4.948
	(-1.46)	(-0.98)	(-0.41)	(-0.67)
CONSTANT	10.510	-19.380	34.711***	67.362***
	(0.52)	(-0.49)	(3.72)	(2.81)
Year Dummies	Included	Included	Included	Included
Industry Dummies	Included	Included	Included	Included
R-squared	0.599	0.606	0.680	0.528
N	41	41	41	41

Notes: This table shows the results of multiple linear regression between KPKU Assessment and firm performance in the Big Size vs Small Size Companies listed on the IDX in 2009-2018 with $^{*}t > 1{,}645$, $^{**}t > 1{,}960$, $^{***}t > 2{,}326$, significance at 10%, 5% and 1%.

Conclusions

This study examines the relationship between the assessment of Criteria for Performance Excellence (KPKU) and the firm performance of States Owned Company (SOE) companies in Indonesia for the period 2009-2018. The result shows that the relationship between KPKU assessment with firm performance was positive and significant. This indicates that the KPKU assessment can improve company performance by increasing communication and integration, framing organizational goals, and providing feedback on organizational strategies. This result can also be a positive signal for shareholders and investors that the company has good performance. In addition, this study also found that a positive relationship between KPKU assessment and firm performance was stronger in companies audited by Big 4 and in big-sized companies. This is because companies audited by Big 4 and large-sized companies tend to be stable and well established and have good consequences and responsibilities to maintain their reputation so that the KPKU assessment is used as a tool for evaluation or comprehensive assessment that can be useful to improve the firm performance.

This research can clarify our understanding of how performance is valued and provide useful suggestions for improving performance appraisal in organizations. In addition, this research also shows the importance of KPKU assessment in driving the performance of SOEs, so that SOEs can achieve strong growth rates which in turn can become a competitive advantage of the company. Furthermore, the results of this study can be used as a guideline for carrying out the company's long-term and short-term strategies, using the KPKU as an evaluation tool for reliable and superior management practices. In addition, this study recommends conducting regular KPKU assessments because it can be useful to provide positive signals for shareholders and investors. In addition, further investigation of effective corporate governance practices can be carried out for future research in strengthening the relationship between KPKU assessment and firm performance.

References

Aguinis, H., & Pierce, C. A. (2008). Enhancing the relevance of organizational behavior by embracing performance management research. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *29*(1), 139-145.

Appelbaum, S. H., Roy, M., & Gilliland, T. (2011). Globalization of performance appraisals: theory and applications. *Management Decision*, 49(4), 570-585. https://doi.org/10.1108/00251741111126495

Arijanto, S., Harsono, A., & Taroepratjeka, H. (2016, January). Performance Measurement using KPKU-BUMN in X School Education Foundation. In *IOP Conference Series: Materials Science and Engineering*, 105(1), p. 012021). IOP Publishing. https://doi.org/10.1088/1757-899x/105/1/012021

Astrauskaitė, I., Paškevičius, A. 2018. An analysis of crowdfunded projects: KPI's to success. *Entrepreneurship and Sustainability Issues,* 6(1), 23-34. http://doi.org/10.9770/jesi.2018.6.1(2)

Bassett-Jones, N., & Lloyd, G. C. (2005). Does Herzberg's motivation theory have staying power?. *Journal of management development*, *24*(10), 929-943. https://doi.org/10.1108/02621710510627064

Caurkubule, Zh. L., Kenzhin, Zh. B. Bekniyazova, D.S., Bayandina, G.D., Dyussembekova, G. S. 2020. Assessment of competitiveness of regions of the Republic of Kazakhstan. *Insights into Regional Development*, 2(1), 469-479. http://doi.org/10.9770/IRD.2020.2.1(6)

Chen, J., Eldridge, D. (2010). Are "standardized performance appraisal practices" really preferred? A case study in China. *Chinese Management Studies*, 4(3), 244-257. 10.1108/17506141011074138

Cintrón, R., & Flaniken, F. (2011). Performance appraisal: A supervision or leadership tool. *International Journal of Business and Social Science*, *2*(17), 29-37.

Davis, E. P. (2002). Institutional investors, corporate governance and the performance of the corporate sector. *Economic Systems*, *26*(3), 203-229. https://doi.org/10.1016/s0939-3625(02)00044-4

El Idrissi, N. E. A., Ilham Zerrouk, I., Naoual Zirari, N., Salvatore Monni, S. 2020. Comparative study between two innovative clusters in Morocco and Italy. *Insights into Regional Development,* 2(1), 400-417. http://doi.org/10.9770/IRD.2020.2.1(1)

Ford, M. W., & Evans, J. R. (2000). Conceptual foundations of strategic planning in the Malcolm Baldrige criteria for performance excellence. *Quality Management Journal*, *7*(1), 8-26. https://doi.org/10.1080/10686967.2000.11919223

Forum Ekselen BUMN. (2014). *KPKU Interpretation Training Materials*. (in Bahasa)

Girdzijauskaite, E., Radzeviciene, A., Jakubavicius, A. 2019. Impact of international branch campus KPIs on the university competitiveness: FARE method, *Insights into Regional Development* 1(2): 171-180. https://doi.org/10.9770/ird.2019.1.2(7)

Grote, R. C. (2002). *The performance appraisal question and answer book: A survival guide for managers*. New York: American Management Association.

Hadrian, M. H., Nugraha, C., & Arijanto, S. (2015). Software System for Internal Assessment Malcolm Baldrige Criteria for Performance Excellence (Category 1 - Leadership) Based on KPKU-BUMN Measurement. *Reka Integra*, *3*(3). (in Bahasa).

Harymawan, I., Nasih, M., Ratri, M. C., & Nowland, J. (2019). CEO busyness and firm performance: evidence from Indonesia. *Heliyon*, *5*(5), e01601. https://doi.org/10.1016/j.heliyon.2019.e01601

Hilkevics, S., Semakina, V. 2019. The classification and comparison of business ratios analysis methods. *Insights into Regional Development,* 1(1), 48-57. https://doi.org/10.9770/ird.2019.1.1(4)

Holzer, M., Charbonneau, E., & Henderson, A. (2011). The state of the practice of performance measurement in intergovernmental arrangements in the United States. *Policy, Performance and Management in Governance and Intergovernmental Relations: Transatlantic Perspectives*, 195. https://doi.org/10.4337/9780857933232.00019

Kementerian BUMN RI. (2015). *BUMN Superior Performance Assessment Criteria.* Deputy for Business Infrastructure (in Bahasa).
Lewis, P. H. (1996). Making change happen through appraisal and development. *CUPA Journal*, 47(1), 7.

Longenecker, C. O., & Fink, L. S. (2001). Improving management performance in rapidly changing organizations. *Journal of Management Development*, *20*(1), 7-18. https://doi.org/10.1108/02621710110365014

Maley, J. (2013). Hybrid purposes of performance appraisal in a crisis. *Journal of Management Development*, *32*(10), 1093-1112. https://doi.org/10.1108/jmd-03-2012-0036

Mawirda, M., & Yulihasri, Y. (2019). An Analysis of Performance Assessment Based on KPKU. *Jurnal Manajemen Dan Bisnis Indonesia*, *5*(2), 181-192.

Mayani, R., Harsono, A., & Arijanto, S. (2015). Performance Measurement Based on MBCfPE in Process Process Focus Categories and Product and Process Product Result Categories at Foundation X. *Reka Integra*, *3*(3). (in Bahasa).

Morrey, F., J. (2004). *The Benefit of Malcolm Baldridge Criteria Applied at Northcentral Technical College.* Thesis Master of Scicence Degree. The Graduate Colleege University of Winsconsin Stout.

Narkunienė, J., Ulbinaitė, A. 2018. Comparative analysis of company performance evaluation methods. *Entrepreneurship and Sustainability Issues,* 6(1), 125-138. http://doi.org/10.9770/jesi.2018.6.1(10)

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies*, *22*(1), 435-480. https://doi.org/10.1093/rfs/hhn053

Rasch, L. (2004). Employee performance appraisal and the 95/5 rule. *Community College Journal of Research & Practice*, 28(5), 407-414. https://doi.org/10.1080/10668920490444436

Roland, T. L. (2011). Applying the Baldrige organizational effectiveness model to the standards for accreditation of a higher education institution. *International Journal of Humanities and Social Science*, *1*(17), 212-220.

Tippe, S. (2013). Company Performance Using PT Baramulti Suksessarana Malcom Baldrige Measurement Technology in The Framework of Adjustment Coal In The WorldClass Companies In Indonesia. *Journal Socio-technology*, 28(2), 290-319. https://doi.org/10.5614/sostek.itbj.2013.12.28.4

van Emmerik, I. H., Schreurs, B., De Cuyper, N., Jawahar, I. M., & Peeters, M. C. (2012). The route to employability. *Career Development International*, 17(2), 104-119. https://doi.org/10.1108/13620431211225304

Wen, D. C., Dai, T., Chen, X., & Fu, T. (2017). A study on the economic benefits of the Government Quality Award in the Chinese context: Based on the investigation and analysis of the award-winning enterprises in Anhui Province. *Total Quality Management & Business Excellence*, *28*(7-8), 712-729. https://doi.org/10.1080/14783363.2015.1114411

Wibowo, T. J. (2019). Improving Company Performance with Superior Performance Assessment Criteria Method (KPKU BUMN). *Journal of Industrial Manufacturing*, *4*(1), 7-12. (in Bahasa).

Acknowledgements

The authors would like to thank the editor and anonymous reviewers for their supportive comments and suggestions. The authors have received partial funding for this research from Universitas Airlangga Research Grant.

Short biographical note about the contributors at the end of the article (name, surname, academic title and scientific degree, duties, research interests):

Melinda Cahyaning RATRI is master student in accounting from Universitas Airlangga in Indonesia. She obtained his bachelor degree (2018) in accounting from Universitas Airlangga. She currently works as reseach assistant in Center of Politic, Economic, and Business Research (CPEBR), a researcher grup that operates under Faculty of Economics and Business, Universitas Airlangga, Indonesia. Research interest: Corporate Governance, Financial Accounting, Board Busyness, Sustainability Development.
ORCID ID: orcid.org/0000-0001-6129-3984

Iman HARYMAWAN is an Assistant Professor in the Department of Accounting, Faculty of Economics and Business, Universitas Airlangga, Indonesia. He obtained his PhD degree (2016) in accounting from City University of Hong Kong in Hong Kong, MBA degree (2009) from National Cheng Kung University in Taiwan, and his B.A. degree (2006) in accounting from Universitas Airlangga in Indonesia. His current research focuses include: corporate governance issues, the accounting impact of political and military connections in business, and financial reporting quality. He currently teaches financial reporting analysis, managerial accounting, and advanced accounting. Research interest: board connection; corporate governance, management accounting.
ORCID ID: orcid.org/0000-0001-7621-6252

John NOWLAND is an Associate Professor in the Department of Accounting. He completed his PhD studies at the University of Queensland in Australia. He has experience working at universities in Australia, Hong Kong and Taiwan. He has also worked in the media, government and banking sectors. His research focuses on corporate governance issues, such as board of director composition and performance.